1-8. (CANCELED)

9. (PREVIOUSLY PRESENTED) A method for extracting impurities from liquids or solids dispersions by using one of supercritical and liquid carbon dioxide as an extraction agent, the method comprising the steps of:

applying the liquid or dispersion as a thin film in a pressure-tight reactor; and

treating the surface of the thin film with the one of the supercritical or liquid carbon dioxide, in a counterflow direction, whereby the surface of the thin film is constantly renewed over at least a portion of a layer thickness of the thin film by mechanically acting on said liquid or dispersion by the aid of one of wipers, rollers or doctor blades, while simultaneously adjusting the thickness of the thin film, and

discharging the liquid or dispersion separately from one of the supercritical and liquid carbon dioxide.

10. (CANCELED)

11. (PREVIOUSLY PRESENTED) A device for extracting impurities from liquids or solids dispersions by using one of supercritical or liquid carbon dioxide as an extraction agent, including a pressure-tight reactor (1) having at least one charging opening (14) for the liquid or dispersion to be treated and the one of the supercritical and liquid carbon dioxide (16) as well as separate discharge openings (15, 17),

wherein the charging opening (14) for the liquid or dispersion to be treated opens on the inner shell (13) of the reactor (1), and that a rotor (8) as radial arms which are arranged in the interior of the reactor (1) and carry at least one of rods (11), scrapers, wipers or rollers (12) extending in the direction of the axis of rotation (9), the radial arms of said rotor cooperating with the liquid or dispersion film on the inner shell (13) of the reactor (1), and the charging opening for the liquid or dispersion to be treated and the charging opening for the one of the supercritical and liquid carbon dioxide are arranged on opposite sides of the reactor.

12. (CANCELED)

13. (PREVIOUSLY PRESENTED) The device according to claim 11, wherein the reactor (1) comprises a substantially cylindrical or funnel-shaped conical inner shell (13).

14. (PREVIOUSLY PRESENTED) The device according to claim 11, wherein a rotor shaft (7) is connected with a drive (6) via a magnetic coupling.

15. (PREVIOUSLY PRESENTED) The device according to claim 11, wherein the charging opening (14) is a radial and axial bore provided in a lid (2) capable of being sealingly connected with the tubular reactor (1).

16. (PREVIOUSLY PRESENTED) The device according to claim 11, wherein the reactor (1) is a tube which has flanges (4, 5) connected to the tube ends, and the lids (2, 3) capable of being sealingly connected in a pressure-tight manner are attachable to the flanges (4, 5).

17. (CURRENTLY AMENDED) A method for extracting impurities from a dispersion using one of supercritical carbon dioxide and liquid carbon dioxide as an extraction agent, the method comprising the steps of:

providing a flow of the dispersion to an interior of a pressure-tight reactor through a first end thereof;

providing a flow of one of the supercritical carbon dioxide and the liquid carbon dioxide to the interior of the pressure-tight reactor via an opposed second end thereof, such that the flow of the one of the supercritical carbon dioxide and the liquid carbon dioxide is counter to the flow the dispersion;

forming the dispersion, within the pressure-tight reactor, into a thin film by mechanically actuating a rotor, located within the pressure-tight reactor, having radial arms which axially support at least one of rods, scrapers, wipers and rollers such that a surface of the thin film of the dispersion is continuously subjected to the flow of one of the supercritical carbon dioxide and the liquid carbon dioxide, and

promoting axial movement of the thin film by rotating the at least one of rods, scrapers, wipers and rollers, which have a helical profile, such that the thin film flows toward a discharge opening;

discharging the dispersion separately from the second end while discharging the one of the supercritical carbon dioxide and liquid carbon dioxide from the first end.

18. (NEW) The method according to claim 9, further comprising the steps of simultaneously adjusting the thickness of the thin film and promoting axial movement

of the thin film toward a discharge orifice by means of rollers having one of a helical, a conical, a convex and a concave profile.

19. (NEW) The device according to claim 11, wherein a plurality of radial arms rotationally support a plurality of roller (12) such that the rollers (12) are axially aligned adjacent the inner shell (13) of the reactor (1), the rollers (12) are spaced from the inner shell (13) of the reactor (1) by a preset distance, which defines a thickness of the liquid or dispersion film, the rollers (12) having one of a helical, a conical, a concave and a convex profile to promote movement of the liquid or dispersion film to a discharge opening.